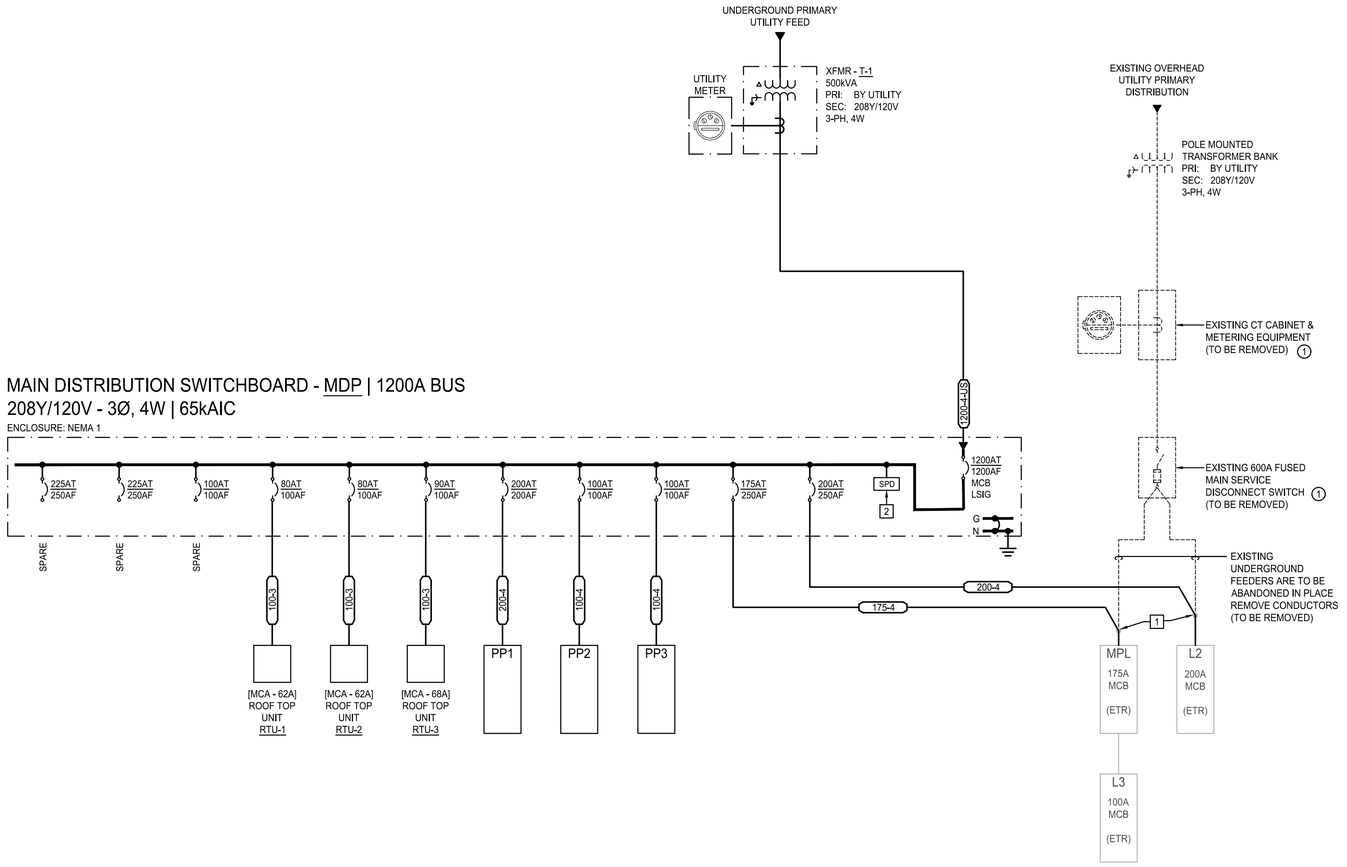

1 SINGLE LINE DIAGRAM
SCALE: NONE

FEEDER SIZE SCHEDULE | 3-PHASE
600V & BELOW (COPPER)

OVER-CURRENT DEVICE RATING	CONDUCTOR SIZE AWG OR KCMIL		4-WIRE FEEDERS WITH EQUIPMENT GROUND		3-WIRE FEEDERS WITH EQUIPMENT GROUND (NO NEUTRAL)		4-WIRE SEPARATELY DERIVED SYSTEM FEEDERS GROUNDING ELECTRODE CONDUCTOR (GEC)			4-WIRE FEEDERS W/O EQUIPMENT GROUND (UTILITY SECONDARY)	
	PHASE & NEUTRAL	EQUIP. GND.	xxxx-4	CONDUIT SIZE	xxxx-3	CONDUIT SIZE	xxxx-4-SD	GEC	CONDUIT SIZE	xxxx-4-US	CONDUIT SIZE
20	12	12	20-4	3/4"	20-3	3/4"	20-4-SD	8	3/4"	20-4-US	3/4"
30	10	10	30-4	3/4"	30-3	3/4"	30-4-SD	8	3/4"	30-4-US	3/4"
40	8	10	40-4	3/4"	40-3	3/4"	40-4-SD	8	3/4"	40-4-US	3/4"
60	6	10	60-4	1"	60-3	1"	60-4-SD	8	1"	60-4-US	1"
70	4	10	70-4	1-1/4"	70-3	1-1/4"	70-4-SD	8	1-1/4"	70-4-US	1-1/4"
100	2	8	100-4	1-1/4"	100-3	1-1/4"	100-4-SD	8	1-1/4"	100-4-US	1-1/4"
110	1	6	110-4	1-1/2"	110-3	1-1/2"	110-4-SD	6	1-1/2"	110-4-US	1-1/2"
125	1/0	6	125-4	2"	125-3	2"	125-4-SD	6	2"	125-4-US	2"
150	1/0	6	150-4	2"	150-3	2"	150-4-SD	6	2"	150-4-US	2"
175	2/0	6	175-4	2"	175-3	2"	175-4-SD	4	2"	175-4-US	2"
200	3/0	6	200-4	2"	200-3	2"	200-4-SD	4	2"	200-4-US	2"
225	4/0	4	225-4	2-1/2"	225-3	2-1/2"	225-4-SD	2	2-1/2"	225-4-US	2-1/2"
250	250	4	250-4	2-1/2"	250-3	2-1/2"	250-4-SD	2	2-1/2"	250-4-US	2-1/2"
300	350	4	300-4	3"	300-3	3"	300-4-SD	2	3"	300-4-US	3"
350	500	2	350-4	3"	350-3	3"	350-4-SD	2	3"	350-4-US	3"
400	600	2	400-4	3-1/2"	400-3	3"	400-4-SD	1/0	3"	400-4-US	3"
450	(2) 4/0	2	450-4	(2) 2-1/2"	450-3	(2) 2-1/2"	450-4-SD	1/0	(2) 2-1/2"	450-4-US	(2) 2"
500	(2) 250	2	500-4	(2) 2-1/2"	500-3	(2) 2-1/2"	500-4-SD	1/0	(2) 2-1/2"	500-4-US	(2) 2-1/2"
600	(2) 350	1	600-4	(2) 4"	600-3	(2) 4"	600-4-SD	3/0	(2) 4"	600-4-US	(2) 3"
700	(2) 500	1/0	700-4	(2) 4"	700-3	(2) 4"	700-4-SD	3/0	(2) 4"	700-4-US	(2) 3"
800	(2) 600	1/0	800-4	(2) 4"	800-3	(2) 4"	800-4-SD	3/0	(2) 4"	800-4-US	(2) 3"
1000	(3) 500	2/0	1000-4	(3) 4"	1000-3	(3) 4"	1000-4-SD	3/0	(3) 4"	1000-4-US	(3) 3"
1200	(3) 600	3/0	1200-4	(3) 4"	1200-3	(3) 4"	1200-4-SD	3/0	(3) 4"	1200-4-US	(3) 3-1/2"
1600	(4) 600	4/0	1600-4	(4) 4"	1600-3	(4) 4"	1600-4-SD	3/0	(4) 4"	1600-4-US	(4) 3-1/2"
2000	(5) 600	250	2000-4	(5) 4"	2000-3	(5) 4"	2000-4-SD	3/0	(5) 4"	2000-4-US	(5) 3-1/2"
2500	(6) 600	350	2500-4	(6) 4"	2500-3	(6) 4"	2500-4-SD	3/0	(6) 4"	2500-4-US	(6) 3-1/2"
3000	(8) 500	500	3000-4	(8) 4"	3000-3	(8) 4"	3000-4-SD	3/0	(8) 4"	3000-4-US	(8) 3-1/2"
4000	(10) 600	500	4000-4	(10) 4"	4000-3	(10) 4"	4000-4-SD	3/0	(10) 4"	4000-4-US	(10) 3-1/2"
5000	(12) 600	(2) 500	5000-4	(12) 4"	5000-3	(12) 4"	5000-4-SD	3/0	(12) 4"	5000-4-US	(12) 3-1/2"
6000	(16) 500	(2) 500	6000-4	(16) 4"	6000-3	(16) 4"	6000-4-SD	3/0	(16) 4"	6000-4-US	(16) 3"

FEEDER SCHEDULE GENERAL NOTES

A. ROUTES, LENGTHS & ABNORMAL ENVIRONMENTAL CONDITIONS SHALL BE VERIFIED TO BE COMPATIBLE WITH THE CABLE TYPE & SIZE. CONSULT ENGINEER WHEN RELATED ISSUES ARISE.

B. NOTE ALL FEEDERS ARE NECESSARILY USED. REFER TO SINGLE LINE DIAGRAM, SCHEDULES, & PLANS FOR REQUIRED FEEDERS.

C. FOR ALL FEEDERS WITH MULTIPLE CONDUITS PROVIDE THE INDICATED NUMBER OF PHASE, NEUTRAL, & GROUND CONDUCTORS IN EACH CONDUIT.

D. UNLESS OTHERWISE INDICATED, ALL CONDUCTORS ARE COPPER, TYPE THWN/THHN INSULATION FOR DRY, INDOOR AREAS & XHHW INSULATION FOR OUTDOOR INSTALLATIONS.

E. UNLESS OTHERWISE INDICATED, FEEDER SIZING SHALL MATCH THE SIZE INDICATED ABOVE FOR THE APPROPRIATE OVERCURRENT PROTECTIVE DEVICE PROVIDED TO PROTECT THE FEEDER OR LARGER WHERE INDICATED. NOTE THAT THE CONDUCTOR SIZE MAY BE LARGER THAN THE OCPD SIZE FOR THE ASSOCIATED CIRCUIT.

F. FOR BREAKER SIZE OF 100A & SMALLER 60°C AMPACITY WAS UTILIZED TO SIZE FEEDERS, 75°C AMPACITY WAS USED FOR FEEDERS PROTECTED BY A BREAKER LARGER THEN 100A.

GENERAL NOTES:

A. THE CONTRACTOR SHALL MAINTAIN EXISTING ELECTRICAL SERVICE IN OPERATION TO THE GREATEST EXTENT POSSIBLE THROUGHOUT THE DURATION OF THE PROJECT. ALL WORK AFFECTING THE EXISTING SERVICE SHALL BE COORDINATED IN ADVANCE TO MINIMIZE DISRUPTIONS TO BUILDING OPERATIONS. CONTRACTOR SHALL DEVELOP A SWITCHOVER SCHEDULE AS SOON AS POSSIBLE SO THE OWNER CAN COORDINATE ALL REQUIREMENTS TO ACCOMMODATE ANY REQUIRED SHUTDOWNS. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING & COORDINATING ALL SHUTDOWNS, ENSURING PROPER NOTICE IS PROVIDED TO ALL STAKEHOLDERS INCLUDING THE UTILITY COMPANY.

(X) DEMOLITION NOTES:

1. DISCONNECT & REMOVE EXISTING ELECTRICAL EQUIPMENT, WIRING, & ALL ITS ASSOCIATED ELECTRICAL WORK.

[X] CONSTRUCTION NOTES:

1. INTERCEPT EXISTING CONDUIT EMERGING FROM THE CONCRETE FLOOR TO FACILITATE CONNECTION TO NEW FEEDER.

2. SURGE PROTECTION DEVICE SHALL INCLUDE INTEGRAL DISCONNECT & OVERCURRENT PROTECTION.

Brown AND Caldwell
BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328
wendel

THIS DRAWING IS NOT VALID FOR CONSTRUCTION PURPOSES UNLESS IT BEARS THE SEAL AND SIGNATURE OF A DULY REGISTERED PROFESSIONAL

CONSTRUCTION DOCUMENTS

NCWSA
NEWTON COUNTY WATER & SEWERAGE AUTHORITY

NCWSA OFFICE ADDITION

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: RB1
DRAWN: RB1
CHECKED: JFW
CHECKED:
APPROVED:
FILENAME
BC PROJECT NUMBER
616202
CLIENT PROJECT NUMBER

ELECTRICAL

SINGLE LINE DIAGRAM

DRAWING NUMBER
E601